

from —

ISSN 0961-2882

# *JOURNAL OF ECONOMIC AND SOCIAL INTELLIGENCE*



Volume 3 Number 2 1993

**TAYLOR GRAHAM**

## JOURNAL OF ECONOMIC AND SOCIAL INTELLIGENCE

VOLUME 3 NUMBER 2 1993

### ARTICLES

- |   |                     |    |
|---|---------------------|----|
| Editorial   | BLAISE CRONIN       | 59 |
| Dropping the cradle: how society responds to the infanticidal mother                      | LAURA WILKERSON     | 60 |
| The secret of human life  | THEODOR HOLM NELSON | 84 |
| Infonautica: thoughts on the necessity and nature of wisdom-based artificial intelligence | SANDOR DARANYI      | 95 |

### REVIEWS

- |   |                     |     |
|---|---------------------|-----|
| John Craven. <i>Social choice: a framework for collective decisions and individual judgements</i>   | SANDOR DARANYI      | 105 |
| C. Owen Paepke. <i>The evolution of progress: the end of economic growth and the beginning of human transformation</i>                      | SANDOR DARANYI      | 106 |
| James Miller. <i>The passion of Michel Foucault</i>   | LAURA WILKERSON     | 109 |
| Davis S. Kaufer and Kathleen M. Carley. <i>Communication at a distance: the influence of print on sociocultural organization and change</i> | ELISABETH DAVENPORT | 111 |
| Bill Buford. <i>Among the thugs</i>   | HERB SNYDER         | 114 |
| Ted Conover. <i>Whiteout: lost in Aspen</i>   | HERB SNYDER         | 114 |
| FID. <i>State of the modern information professional</i>  | BLAISE CRONIN       | 116 |
| J.G. Marshall. <i>The impact of the special library on corporate decision-making</i>  | CAROL HERT          | 117 |

## THE SECRET OF HUMAN LIFE

THEODOR HOLM NELSON

Autodesk Inc., 2320 Marinship Way, Sausalito, CA 94965, USA

### GENERAL

This is a work of speculative interpretation, covering various topics in mind, evolution and the social sciences. It involves no new empirical research. It is a new set of concepts which appears to cover the breadth of existing empirical material more reasonably than most; as well as covering certain acute personal experiences (happiness, lust, sex and violence) more directly than most theories. In other words, I have stumbled into a startling new view of human life that seems to cover everything.

I came to these views gradually, and through an unusual route; thinking about the premises of modern population genetics and sociobiology, and gene benefit (now recognised as the purpose of life).

My theory of human life is best begun with a rhetorical question having to do with *morale*, i.e. feeling good or fierce or ready, and its relation to our ability to function. Why is it that some days we can seemingly achieve anything, and other times we can hardly get out of bed? Why don't we perform at peak efficiency all the time? There *must be a reason*, and it must have to do with gene benefit, that is, behaving according to the hidden principles that cause personal morale and efficiency to fluctuate must benefit the genes of those who do. *Morale, and our swings up and down, our exhilarations and depressions, must have a function and bring gene benefit.*

For thousands of years people have asked, 'Why do I feel so terrible?' But for thousands of years people could have asked the much more general question, 'Why is there such a thing as morale?' However, the question would have made no sense, until now, in the light of modern evolutionary theory.

My hypothesis: this utterly familiar phenomenon of morale is no accident or side effect, but a grand heuristic for the organization of social life for gene benefit, a sweeping mechanism for the organization of society and the aggrandizement of the fittest. It organizes attempts by all individuals to better themselves in prosperity and reproductive benefits. And from this system (in non-obvious ways) flow the familiar phenomena of morale and demoralization, depression, self-destructive behaviour, cruelty and victimization, and the quaint sexual madness of the human species.

Finally, if all this so, it points to startlingly simple ways to become

happier and more productive as individuals, as groups and as whole nations.

### BIOSTATUS

I postulate something which I call *biostatus*. It is your instantaneous rating on a great scale, and it is the mechanism which operates constantly to raise and lower us on this scale, steering most of our behaviours by means of this scale.

This scale of biostatus has two aspects: morale and effectiveness. The biostatus concept sandwiches together these two familiar aspects of life. We *feel* biostatus as well-being: exhilaration, energy, euphoria, vigour, strength, confidence, competence, concentration; or on the down side, as dejection, depression, paralysis, illness; even the loss of the will to live.

Now, everyone knows (especially salespeople and the military) that morale affects your ability to operate effectively. My hypothesis: this is *exactly* its biological function, to *tune effectiveness* (its outer aspect). Just as any emotion is a control mechanism to organize behaviour (as love and anger organize commitment and fighting), morale is an emotional condition that tunes readiness and effectiveness. Thus biostatus is both morale (the inner feeling) and effectiveness (the outer part) or more specifically, *outer effectiveness, as tuned by inner morale.*

There are many well-known circumstantial causes for the fluctuation of biostatus. Things like these bring you up: success, sexual achievement, others' admiration, anger. And especially the life-threatening emergency. Other things bring you down: failure, disappointment, loss of loved one, others' ridicule.

### WHY THE NAME 'BIOSTATUS'?

First reason for the name. There is a *biostat*, which, in the long term, like a thermostat, *holds us to a certain effectiveness and energy level.*

Everyone has a preset average biostatus and success level. When your effectiveness level is below this level, or when you are in a life-threatening emergency, your powers are magnified. But when you're above this preset level, you go back down.

According to this view, Freudian self-destructiveness is simply a mechanical bring down in the face of too much energy, power and effectiveness. (In the most disastrous pattern, it can also be a positive feedback from failure, resulting in a nosedive to the gutter or death).

Note that while success and failure directly raise and lower biostatus in the short run, they are damped in the longer run by the biostat. This is what has caused so much confusion in the social sciences and our lives.

*Second reason for the name.* The other reason for calling it biostatus: it is the internal counterpart of the external status system. I call it *biostatus* because I consider it to be an exact internal analog to *status*. Status is external evaluation, biostatus is internal evaluation, and the two mechanisms together are the two central heuristics of animal life and the struggle for genetic advantage.

#### BIOSTATUS MANAGEMENT

Nobody likes to feel down, so much of what we do in our lives is *biostatus management*, trying to find highs to get us out of biostatus lows; having a drink, vacations, 'psyching up', 'buckling down', the mourning process, getting over a broken romance and so on. But in the long run these quick biostatus fixes are quite futile, since the biostat always brings us down to hold its average. But nevertheless we drink, take drugs, fight, take risks (e.g. gamble), and otherwise try to keep biostatus up.

Drugs are a fascinating aspect of this. All recreational drugs raise biostatus, though in different ways e.g. alcohol raises fighting biostatus, pot raises self-evaluation. Cocaine and amphetamine are almost pure biostatus ups. They enhance all one's identity traits, making intellectuals cleverer, glamorous women feel more beautiful and jocks feel more macho, but they also average exactly to zero with the resulting down.

#### OUR PRECIOUS FLUID: CRUELTY AND VIOLATION AS BIOSTATUS THEFT

Another key form of biostatus lift is *hurting* others. This is because, curiously, biostatus can be *stolen*, taking away the other's inner well-being for temporary gain; and to lower someone else's biostatus raises our own — temporarily, of course, as with drugs. This cruelty and violation — from teasing and the conversational dig, on up to rape and torture, confer a temporary and potentially addictive biostatus up.

Major hypothesis: *put down, violation, and revenge are a way to steal someone's biostatus.* (This works for everybody, and kindly people are the ones who best suppress the tendency — partly by being better off). It is natural to lift your own biostatus by harming another's.

Cruelty is literally predatory: just like a carnivorous animal, you quickly gain energy with less effort than by means which would benefit both parties. It is zero-sum: the victor gains, the victim loses.

A strong and clear case is murderous revenge. Perfect vengeance involves laughing in the victim's face and disclosing the reason — 'this is for Johnny'. The avenger wants not merely to harm, but for the victim to know it, so as to absorb the boost from seeing the victims pain and

consternation.

Some need the cruelty fix more than others (the well-off suppress it). Cruelty is especially important as a fast fix for those of low status. (Like sugar, it provides a quick fix but the need to do it again soon ensues). *This explains why the desperate do others the most harm: their biostatus is so low they'll go for any temporary up.* Examples include the brutality of prisoners, the constant insult in American black slums; the prevalence of love 'em and leave 'em among the poor; malicious gossip among those of low status in any group.

#### SOCIAL BIOSTATUS EXCHANGE

There are other types of biostatus exchange, though they are less immediately powerful. Generalizing the cruelty model, we see that biostatus is a quasi-fluid substance that may be socially moved.

In *benign biostatus exchange*, the parties boost each other and benefit together, feeling mutually gratified and uplifted. Examples: polite occasions, dinner parties, *etiquette*, graciousness, musical recitals (opera, concerts in which the audience pours out appreciation).

We see a mixture of violation and benign biostatus exchange in many settings. Notable are the cocktail party, the business or professional convention, and the classroom.

#### STATUS

For this analysis to be complete, we must also look at the status system, a rather puzzling fact of human life. (One aspect: sociologists have been puzzled by the fact that the abstract scale of 'status' correlates more exactly with various kinds of behaviour than do any of the constituent *parts* of status. (It will be apparent why, later).

Status, the ranking of individuals and groups, is not 'culturally imposed'. Status is a system for organizing rewards, and the human status system is clearly derived from the animal status system. Status is clearly universal in the animal kingdom, and takes its uniquely human forms throughout the world in the same ways. It is part of our biostategy. Thus we must re-examine it as a mechanism of potential prosperity benefit and genetic benefit.

Its benefits for all animals are resources, territory and mating advantage (mating includes both prosperity and genetic benefits). And so seeking status is a clearly-defined heuristic (though with various styles and options) by which animals seek such benefits.

The functions of status in the human world are less transparent, but they're really the same, though differentiated into curious forms.

Status throughout the animal world works partly from fighting and direct contention (especially pairwise duels that stop short of death), partly through attraction, partly through favours, partly through other mechanisms. These all tend to establish pecking orders and territoriality and to attract mates.

The human status system has differentiated from animal status in various ways; thus it is now a rich behaviour cluster with various aspects and associated behaviours — prestige and popularity, 'status seeking', wealth, power, fame, possessions and perquisites, driving BMWs and so on.

But there is commonality: all the human status ratings are forms of *external evaluation* (some automatic, some in the eyes of other people) *tending to lead to advantage when positive*. (For various reasons I want to generalize the term 'status' to mean *external evaluations of all kinds* — not just reward as mediated by the views and actions of others.

#### *Emotions of status*

We have built into us various emotions of status, which organize our behaviour strikingly: competitiveness, domination, envy, ambition, social climbing (the desire to affiliate with those of high status) and an emotion which has no common English name, that of rejecting losers, or those of low status).

#### *Gearing of status to biostatus* (The emotion of morale)

Status and biostatus are geared together, and so others' evaluation ordinarily raises and lowers our biostatus. It can also work in the other direction. Biostatus, in the form of charisma, may raise our status, but dangerously — look what happened to Joan of Arc.

#### *Alienation, withdrawal and paranoia*

There is one way out of having your biostatus depend on others' evaluations, and that is to reject the evaluation of others. This is called alienation; at its extreme, it is called paranoia. (Consider also bitterness, disaffection, and going away mad). Alienation works for both individuals and low-evaluated groups; it has the important function of helping them keep up biostatus — though at other, often very great, costs.

#### THE STATUS BIO-STATUS SYSTEM: SYMMETRICALLY PAIRED HEURISTICS

The isomorphism and tight coupling of status and biostatus merit our close attention.

My hypothesis: status and biostatus are the two most fundamental heuristics for the steering of behaviour. Status and biostatus are an

interlocking pair of guidance principles for homing in on personal genetic benefit.

Status and biostatus have a remarkable symmetry. They are fundamental heuristics: each is a simplified guide to behaviour which has been found by evolution. Together they constitute the master evaluation system of social animals. The outer component is status; the inner component is biostatus (ability and morale).

This system is concerned with guidance of our behaviour in various interlocking realms; social relational acquiring of resources; dealing with tasks and goals, and working towards achievement; acquiring of mates; the raising of children (and the being raised); achievement and striving — what you claim, what you attempt, whom you challenge; success and failure.

#### *Why this mechanism?*

The biostatus mechanisms are self-evidently present, powerful and pervasive, yet they defy common sense.

If human beings are tuned by evolution for effectiveness, and any casual stroll around the planet will indicate that this is so, then how does this square with the downside of the biostatus mechanism, the persistent and dependable reduction of an individual's effectiveness under various circumstances?

There are many possible explanations. After examining several, here is the hypothesis I would like to put forth.

*Why the biostatus mechanism? It is a reward and punishment heuristic for steering the individual through life, and this is its deeper symmetry to status.*

Recall that status is the outside world's evaluation of you, both the opinions of others and more concrete rewards and punishments. We respond intensely to our current status, refocussing the efforts of our lives, or often going elsewhere to start over.

Thus status is the *external evaluation of your fitness and success* as defined by others and by your bank account. The signals provided by this external mechanism are a vital guide for your later success and thus you are given a disposition to take them seriously; you heed the opinions of others because you are programmed to, and because they are likely to affect your life.

Thus the outer evaluation of success is magnified in later behaviour, reinforcing what works.

This mechanism was put in you by evolution and is a fundamental part of the species.

This external part, the status mechanism is familiar and understandable. But why would a corresponding internal mechanism, biostatus, evolve to the point of self-destructiveness?

Biostatus, the inner analog of status, is the *internal* evaluation of your fitness and success. This too provides signals, which manifest themselves internally in the emotion of morale and externally in the tuning of ability and effectiveness that results. It is an inner evaluation of success that becomes magnified into outer behaviour.

We need biostatus because we can't help it; when you are depressed you can hardly function; meaning an inner evaluator says 'things aren't working'; when you are exhilarated you can accomplish things with ease, for the inner evaluator is saying 'Go for it'.

#### *Nature's way of telling you to slow down, or speed up*

The hypothesis of symmetry to status leads to some surprising possibilities. Status, as we have defined it, is *external* evaluation of various sorts. Symmetrically, biostatus is *internal* self-evaluation. There are various detailed analogies and relations to external status.

When you're succeeding, biostatus rises, saying 'do more'; when you're failing, low biostatus is nature's way of telling you to slow down. This up and down is the biostatus system.

The biostatus system is a heuristic that has evolved to reward and facilitate success, and to punish and curtail failure. (Thus the downside of the biostatus mechanism, generalized discouragement in its many forms, is a strategy of avoidance and caution similar to pain and shyness).

It is an instantaneous measure of the organism's current success, and a system of instantaneous reward or punishment for this success or failure, anticipating the rewards that the status system would confer more slowly.

Status is a middle-term indicator of longer-term success. Individual prosperity and gene benefit constitute long-term success; status and others' positive evaluations are near-term measures of current success; and biostatus is an instantaneous individual measure.

#### THE INNER STRUCTURE OF BIOSTATUS

But where does this evaluation occur, especially since we are always making excuses to ourselves ('ego defences')? Answer: there is also at least one unbribable Watcher (given various names by Freud and others), who rewards and punishes success and failure according to your *true* standards, as distinct from your pretexts. (And just finding *out* your true standards, as applied in Draconian style by such Watchers, can be a lifelong endeavour).

Thus we close the expository circle. The biostatus mechanism must indeed be administered by some punishing and rewarding supergo, operating according to what are often secret standards, inaccessible to consciousness. But this view holds that this entire mechanism must work for long-term benefit in the majority of cases. For we are alive, and our crazy species runs the planet.

#### *The watcher*

There may be many Watchers; it is clear that the mind is a swarm of entities (polymind).

A Watcher is an uncommunicative entity within a hidden portion of the mind, judging the individual's success with a continual instantaneous rating. (When I say it is 'uncommunicative', I mean that the individual cannot *experience directly* its thoughts or judgments, even though it is inside oneself. But its function is to signal indirectly to its animal in various ways about what is and isn't working or rightful. 'Conscience' is part of its indirect signal-system).

It is the Freudian superego and much more — rater, punisher and executioner. But this is a Freudian mechanism without Freud's least plausible part, which hardly makes sense in a successful species — punishment logic in terms of inner vengeance.

Hypothesis: well-being and psychosomatic problems — the whole biostatus scale — are direct success measurements.

#### *Hedonics*

*Pleasure and happiness and the experienced feelings of love* are high bio-status states; they are reward states indicating to the experiencer what sort of experience to seek in the future; but as reward states, alas, they cannot endure — *except* through long-term biostatus growth.

#### THE HUMAN SEXUAL SYSTEM

Not only is sex a personally compelling subject to most of us, but I consider it *the* most intellectually fascinating topic. Yet no analysis of human sexuality I have seen makes any sense whatsoever. Western society has a pseudo-monogamous system with curious conflicts and side patterns. But allowing for minor variations in the number of official spouses, the human sexual system seems to be varied but similar throughout the world, unlike any other in the animal kingdom.

Why is there such a broad spectrum of human sexuality when only a small part leads to actual reproduction? Seemingly human sex is so varied, naughty and centrifugal. Yet somehow it *keeps leading to marriage and reproduction*. There must be more at work.



I think I can finally explain these matters. Human sexuality (and the attitudes around it, which are part of it) is an animal behaviour system strongly organized by the two heuristics already mentioned — status and biostatus and one more, to be discussed. Together they seem to account for all the curiosities and paradoxes of the human sexual madness, such as adultery, groupies, the dating game, and the various prohibitions.

### *The third heuristic*

Just as status and biostatus have evolved as mechanisms to guide the organism optimally, a third heuristic, the *sexual* status system, has evolved to steer us in decisions involving our genitalia.

### *The sexual status scale*

Everywhere there is a sexual status scale, on which every person is ranked by most of the other people. Wherever people of any age and sex look each other over and evaluate each other's masculine and feminine traits, whether as imagined marital or sex partners, rivals, or as possible macho comrades, there is a sexual status scale in operation.

Often this is explicitly copulatory, and regards actual and potential couplings; but often it deals only with gender ideals of behaviour and character. By this I mean that each person has an attractiveness that is explicitly related to sexual coupling, marriage and/or ideals of masculinity and femininity. Thus no one is too old or young to be included, no one is beyond the reach of sexual evaluation in this sense. And we judge ourselves, and are widely judged, by the sexual-status ratings of those we associate with.

Pursuing high-status partners and acts is a strong genetic and social heuristic of potential benefit. Thus we are constructed so that achievement on the sexual status scale raises biostatus. Hence the groupie phenomenon. But there is also catchall genetic benefit to the male for a variety of couplings; thus the thrill of 'conquest'.

However, it is a predatory status boost, as mentioned above, to put down people for whatever reason. Low-status sex is a prime target; thus we dare not expose much of our sexual behaviour. From those comes our caution and our sense of privacy; the jokes and whispers about who is doing what with whom, which explains our furtiveness about sex and the structure of various sexual subcultures: they are alienated and defensive, endeavouring to build up the biostatus of their ill-regarded members.

### *Sexual markets*

Everywhere there is a sexual market: not just in red-light districts, singles and gay bars, but wherever companionable bargains are struck with an

overtone of sex, gender or courtship. Possible partners constantly evaluate each other. There are constant onceovers, snubs, approaches, and the occasional bargain struck — even if only to have a cup of coffee together.

Sexual markets (by manners, admiring glances, turnings-away) present an instantaneous rating of your position on the local status scale. Sexual markets are an acute and compelling aspect of status, intense for everyone. And why such intense and constant sexual-market activity? The answer is that is closely geared to both status and biostatus. Consciousness of one's own sexual status, and the direct rewards of the sexual market (from flirtation on up), by raising or lowering biostatus, serve to guide us toward behaviour which increases our market position.

Most seek, in the sexual market, partners and experiences of high sexual status. Altogether this gets each participant approximately the best bargain available to him or her, which *eventually* or *intermittently* may lead to reproduction — again, with the partner likely to be the best bargain available.

This system is no accident. The sexual status scale, and sexual markets, elegantly and parsimoniously deal with many issues of genetic benefit: directing energy away from activity which is least beneficial genetically and by defining attractiveness, guiding us toward partners who present optimal mating advantages, through their resources, abilities or age; they also cause us to work very hard for 'the good catch' even if the catch lasts only a night.

### UPLIFT: BENEFITS OF BIOSTATUS THEORY

Most social science theories are not prescriptive, and indeed avoiding any trace of advocacy is part of the usual social science ethic. However, the most astonishing thing about biostatus theory is that it offers, indeed mandates, very strong advice to individuals, groups and nations about raising biostatus. (Note, however, that I am only codifying in new terms what many individuals and cultures have already known).

Most biostatus raising is only cyclical, and thus useless in the long run. But slow biostatus growth — *real* uplift — can be accomplished in various ways. This has a great deal to do (at least in non-traditional societies) with *achievement* — since, indeed, self-evaluation is the function of biostatus. Thus small cumulative achievements build biostatus.

We can also build the biostatus of others. There are two methods: *benign conversion* (offering opportunities for success and long-term biostatus uplift), and *abusive conversion* (as practised by Marine Basic

Training, various religious cults, various human-potential teachings, and Nazi concentration-camp guards among others). In abusive conversion, a person is attacked (i.e. given low status) for his or her old way of life, and then given opportunities for approval and success based on an entirely new system of compliance and achievement. In terms of power over people and bang for the buck, abusive conversion is lamentably effective.

I find this theory extremely rich and productive. It goes on forever: every human act, every human activity — e.g. sports, business, education — can be examined as a status-biostatus system. Some systems (or at least organizations) may also be rebuilt in the basis of raising and maintaining high biostatus (and thus productivity). I take this to be the secret of Japan and other achieving societies.

There are also fascinating consequences for morality, etiquette and the design of societies. You can live every day in terms of trying to promote your own (and others') real biostatus growth — and this turns out, of all things, to be the Christian ethic.

#### ACKNOWLEDGEMENT

Adapted from a book in progress, *Biostrategy and Polymind: A New Theory of Human Life*.

## INFONAUTICA: THOUGHTS ON THE NECESSITY AND NATURE OF WISDOM-BASED ARTIFICIAL INTELLIGENCE

SANDOR DARANYI

*School of Library and Information Science, Eotvos Lorand University, 1088 Budapest, Muzeum krt. 6-8, Hungary*

#### INTRODUCTION

This essay is about three treatises, the authors being Hofstadter,<sup>1</sup> Stonier<sup>2</sup> and Nelson.<sup>3</sup> My reflections are fragmentary, ill-coordinated and weak compared to the subject emerging from their interdependencies. Tom Stonier developed a futuristic framework in which Teilhard de Chardin and artificial intelligence embrace, the purpose of human existence being solely to bridge the gap between stupid information and divine intellect — even at a price of converting ourselves into semihuman androids or robots free from the weaknesses of flesh. Doug Hofstadter inspired me to comment on his notion of isomorphism, the mathematical notion of absolute correspondance, that may be crucial for a better understanding of meaning versus sense. Finally, Ted Nelson summed up his views concerning the biostatus of humans, an indicator and motor of behaviour, under the guidance of a Watcher in each person — something yet to be related to the categorial differences between knowledge and wisdom.

#### THE PROBLEM OF DIRECTIONS

If yes, why not? Indeed, this seems to be the basic rule of the existential game mankind is playing by virtue of his intellect. If we should, why shouldn't we? This second interpretation of the same concern leads us closer to the semantics hiding beyond frivolity, however.

Time is rich in slots, roles waiting to be filled in by persons. As another rule, none of us can escape his or her role, either, although it lies with him if this is going to be his fate; the social animal in us will take care of that. In an age of information, this second rule prompts us to define where we are, what, how, and why we are doing.

The result of the first prompt is the notion of a fearsome but fascinating experience, the information explosion. Possibly originating in another hypothesis, that of the Big Bang, this powerful metaphor conveys something essential about a universe which would consist of three basic constituents instead of two, the third being information alongside energy and matter. Much to my amusement, however, nobody ever has seen a particle of information. Information is something that is meaningful to somebody, just as a sign is what we happen to consider to be one — both need an interpreter, organic or anorganic, and do not exist